

ABSTRACT OF THE DISCLOSURE

A short wave high efficiency radio broadcasting transmitter for digital transmissions. The transmitter includes a power tube in which the grid is excited by a variable phase signal through an excitation device and in which the anode is amplitude modulated by the output signal from a modulator. The phase and amplitude signals applied to the grid and anode of the tube respectively represent the phase and amplitude of the complex signal to be transmitted. The amplification characteristic of the excitation device remains linear for low amplitudes of the signal to be transmitted and operates under saturated conditions when the amplitude of the signal to be transmitted exceeds a given threshold value, so that the amplification characteristic of the transmitter as a whole remains linear independently of the amplitude of the signal to be transmitted. Such a transmitter may find particular application as a short wave transmitter.